

CLAIMS:

1. A check valve for a fuel pump of a vehicle comprising:

5 a valve housing adapted to be disposed in an outlet member of the fuel pump;

a valve seat formed on said valve housing;

a valve member disposed in said valve housing and having a closed position to operatively engage said
10 valve seat to prevent fuel from flowing through the outlet member and an open position to allow fuel to flow through the outlet member; and

said valve member having a single outlet port to allow flow from said valve member when said valve member
15 is in said open position.

2. A check valve as set forth in claim 1 wherein said valve housing has a passageway extending axially therethrough to receive said valve member.

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3. A check valve as set forth in claim 2 wherein said valve housing has an enlarged opening at one end of said passageway.

4. A check valve as set forth in claim 1 wherein said valve member has a flow port extending axially into one end thereof.

5 5. A check valve as set forth in claim 2 wherein said outlet port extends radially through said valve member and communicates with said flow port.

6. A check valve as set forth in claim 1
10 including a spring disposed about said valve member to urge said valve member toward said valve seat.

7. A check valve as set forth in claim 6 wherein said spring comprises a coil spring.

15 8. A check valve as set forth in claim 1 wherein said valve member includes an annular groove adjacent said valve seat.

20 9. A check valve as set forth in claim 8 including a seal disposed in said groove.

10. A check valve as set forth in claim 1 wherein said seal is made of an elastomeric material.

11. A check valve for a fuel pump of a vehicle comprising:

a valve housing adapted to be disposed in an outlet member of the fuel pump;

5 a valve seat formed on said valve housing;

a valve member disposed in said valve housing and having an annular groove adjacent said valve seat and including a seal disposed in said groove, said valve member having a closed position in which said seal engages
10 said valve seat to prevent fuel from flowing through the outlet member and an open position to allow fuel to flow through the outlet member; and

said valve member having a single outlet port to allow flow from said valve member when said valve member
15 is in said open position.

12. A check valve as set forth in claim 11 wherein said valve housing has a passageway extending axially therethrough to receive said valve member.

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13. A check valve as set forth in claim 11 wherein said valve housing has an enlarged opening at one end of said passageway.

14. A check valve as set forth in claim 11 wherein said valve member has a flow port extending axially into one end thereof.

5 15. A check valve as set forth in claim 14 wherein said outlet port extends radially through said valve member and communicates with said flow port.

10 16. A check valve as set forth in claim 11 including a spring disposed about said valve member to urge said valve member toward said valve seat.

17. A check valve as set forth in claim 17 wherein said spring comprises a coil spring.

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18. A check valve as set forth in claim 11 wherein said seal is made of an elastomeric material.

19. A check valve for a fuel pump of a vehicle comprising:

a valve housing adapted to be disposed in an outlet member of the fuel pump;

a valve seat formed on said valve housing;

a valve member disposed in said valve housing and having an annular groove adjacent said valve seat and including a seal disposed in said groove;

a spring disposed about said valve member to
5 urge said valve member toward said valve seat in a closed position in which said seal engages said valve seat to prevent fuel from flowing through the outlet member; and

said valve member having a single outlet port to
allow flow from said outlet port when said valve member is
10 in an open position to allow fuel to flow through the outlet member.

20. A check valve as set forth in claim 19
wherein said valve member has a flow port extending
15 axially into one end thereof and said outlet port extends radially through said valve member and communicates with said flow port.